

CLAIMS

1. An information processing system for transmitting information among an information sending apparatus, an information processing apparatus and an information receiving apparatus all connected to an information transmitting system having a plurality of transmission channels, including a first transmission channel operable to send said information from said information sending apparatus to said information processing apparatus, said information processing system comprising:

an input unit connected to said information transmitting system;

an output unit connected to said information transmitting system;

an information supply unit operable to supply said information from said input unit to said output unit;

means for establishing a second transmission channel in said information transmitting system between said information processing apparatus and said information receiving apparatus; and

means for transmitting said information from said information processing apparatus to said information receiving apparatus via said second transmission channel.

2. The information processing system according to claim 1, wherein said information transmitting system includes an IEEE1394 serial bus interface.

3. The information processing system according to claim 1, wherein said means for establishing said second transmission channel acquires a band and a transmission

channel required for transmitting said information from said information transmitting system.

4. The information processing system according to claim 1, wherein said input unit comprises a logical input plug and said output unit comprises a logical output plug, and said information supplying unit connects said logical input plug with said logical output plug.

5. The information processing system according to claim 4, wherein said logical input plug and said logical output plug each include a register.

6. In an information processing system for transmitting information among at least an information sending apparatus, an information processing apparatus and an information receiving apparatus all connected to an information transmitting system having a plurality of transmission channels, including a first transmission channel operable to send said information from said information sending apparatus to said information processing apparatus, said information processing apparatus comprising:

an input unit connected to said information transmitting system;

an output unit connected to said information transmitting system; and

an information supply unit operable to supply said information from said input unit to said output unit;

said information processing apparatus being operable to transmit said information to said information receiving apparatus via a second transmission channel established in said information transmitting system between

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said information receiving apparatus and said information processing apparatus.

7. The information processing apparatus according to claim 6, wherein said information transmitting system includes an IEEE1394 serial bus interface.

8. The information processing apparatus according to claim 6, wherein said input unit comprises a logical input plug and said output unit comprises a logical output plug, and said information supply unit connects said logical input plug with said logical output plug.

9. The information processing apparatus according to claim 8, wherein said logical input plug and said logical output plug each includes a register.

10. The information processing apparatus according to claim 6, further comprising a channel selection unit operable to select a desired transmission channel from said plurality of transmission channels, and to receive said information via said desired transmission channel.

11. The information processing apparatus according to claim 6, wherein

 said information supply unit is operable to adjust a transmission rate of said information input from said input unit and to supply said information with said adjusted transmission rate to said output unit.

12. An information processing system, comprising:
 an information transmitting system having a plurality of transmission channels;
 an information sending apparatus connected to said information transmitting system;

an information processing apparatus connected to said information transmitting system;

an information receiving apparatus connected to said information transmitting system;

means for establishing a first transmission channel in said information transmitting system between said information processing apparatus and said information sending apparatus;

means for establishing a second transmission channel in said information transmitting system between said information processing apparatus and said information receiving apparatus;

means for transmitting information from said information sending apparatus to said information processing apparatus via said first transmission channel; and

means for transmitting said information from said information processing apparatus to said information receiving apparatus via said second transmission channel.

13. The information processing system according to claim 12, further comprising:

an input unit connected to said information transmitting system;

an output unit connected to said information transmitting system; and

an information supply unit operable to supply said information from said input unit to said output unit.

14. The information processing system according to claim 13, further comprising a plurality of information sending apparatus connected to said information transmitting system, each information sending unit operable to transmit

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information to said information processing apparatus via one of said plurality of transmission channels, wherein said information processing apparatus includes a selection unit operable to receive information from a selected one of said information sending apparatus by selecting a desired transmission channel corresponding to said selected one of said information sending apparatus from said plurality of transmission channels.

15. The information processing system according to claim 13, wherein said information supply unit includes a transmission rate adjusting unit operable to adjust a transmission rate of said information input from said input unit and to output said information with said adjusted transmission rate to said output unit.

16. An information processing method for transmitting information among an information sending apparatus, an information processing apparatus and an information receiving apparatus all connected to an information transmitting system having a plurality of transmission channels, comprising:

transmitting information from said information sending apparatus to said information processing apparatus via a first transmission channel in said information transmitting system;

establishing a second transmission channel in said information transmitting system between said information processing apparatus and said information receiving apparatus; and

transmitting said information from said information processing apparatus to said information receiving apparatus via said second transmission channel.

17. The information processing method according to claim 16, wherein said information transmitting system includes an IEEE1394 serial bus interface.

18. The information processing method according to claim 16, wherein said step of establishing said second transmission channel includes acquiring a band and a transmission channel required for transmitting said information from said information transmitting system.

19. The information processing method according to claim 16, further comprising:

 inputting said information via an input unit connected to said information transmitting system; and

 supplying said information from said input unit to an output unit connected to said information transmitting system.

20. The information processing method according to claim 19, wherein said input unit comprises a logical input plug and said output unit comprises a logical output plug, and said supplying step supplies said information by connecting said logical input plug with said logical output plug.

21. The information processing method according to claim 19, further comprising adjusting a transmission rate of said information input from said input unit and supplying said information with said adjusted transmission rate to said output unit.

22. The information processing method according to claim 16, further comprising selecting a desired transmission channel from said plurality of transmission channels and receiving said information in said information processing apparatus via said desired transmission channel.

23. An information processing method, comprising:

providing an information transmitting system having a plurality of transmission channels;

connecting an information sending apparatus to said information transmitting system;

connecting an information processing apparatus to said information transmitting system;

connecting an information receiving apparatus to said information transmitting system;

establishing a first transmission channel in said information transmitting system between said information processing apparatus and said information sending apparatus;

establishing a second transmission channel in said information transmitting system between said information processing apparatus and said information receiving apparatus;

transmitting information from said information sending apparatus to said information processing apparatus via said first transmission channel; and

transmitting said information from said information processing apparatus to said information receiving apparatus via said second transmission channel.

24. The information processing method according to claim 23, wherein said information transmitting system includes an IEEE1394 serial bus interface.

25. The information processing method according to claim 23, further comprising:

inputting said information via an input unit connected to said information transmitting system, and supplying said information from said input unit to an output unit connected to said information transmitting system.

26. The information processing method according to claim 25, wherein said input unit comprises a logical input plug and said output unit comprises a logical output plug, and said supplying step supplies said information by connecting said logical input plug with said logical output plug.

27. The information processing method according to claim 25, further comprising adjusting a transmission rate of said information input from said input unit and supplying said information with said adjusted transmission rate to said output unit.

28. The information processing method according to claim 23, further comprising selecting a desired transmission channel from said plurality of transmission channels and receiving said information in said information processing apparatus via said desired transmission channel.